Guidance Systems

Guidance has been one of the most adopted precision agriculture (PA) technologies to-date by farmers, custom applicators and others. Guidance technology reduces application overlap or skips, improves infield efficiency and gives farmers the ability to work at night leading to cost savings. There are different levels of pass-to-pass accuracy, ranging from 2 to 12 inches. Real-time Kinematic (RTK) differential correction provides the highest level of accuracy at +/-1 inch or less and is quickly becoming standard for precision agriculture operations.

Adopting RTK

Auto-steer systems utilizing RTK can provide year-to-year, repeatable accuracy to the sub-inch level. Applications for RTK auto-steer guidance include planting, harvesting, fertilizing, spraying, installing drip irrigation and controlling traffic patterns. Auto-steer guidance systems actually steer machinery instead of the equipment operator.

Benefits of RTK Technology

- Repeatable accuracy to the sub-inch level
- Minimize overlap and skips
- Improved field efficiency
- More accurate placement of agronomic inputs such as fertilizer and herbicides
- Ability to work accurately at night
- Cover more acres with fewer hours of operation

Farmer Testimony by Kevin Holland

Why did you adopt RTK guidance?
We needed repeatability to find peanut rows and to keep the tire tracks on the same path to reduce compaction in the crop rows. We started using a lightbar in the late 90s then invested in an RTK auto-steer system in 2000.

Is it worth investing?
Absolutely Yes! We intended to use it solely for digging peanuts but the capabilities of the system are tremendous. We can see a big difference in our crops where residual herbicide exists from double application (excessive overlap), so we now use it for automatic section control on our sprayer. The section control not only eliminated double application areas but has also provided substantial savings on pesticides. We now use RTK for all spray applications and on all our tractors.

Advice to Others:
Anyone that does not have RTK should! Even if you do not use it for peanuts, I see where it would have significant savings when running bigger planters and sprayers. Don’t be scared of it, it will pay for itself.

Kevin Holland and David Womack of Atmore, AL adopted RTK primarily for digging peanuts. However, they find it just as useful for cotton, wheat and soybean production on their farm.